

Test Data

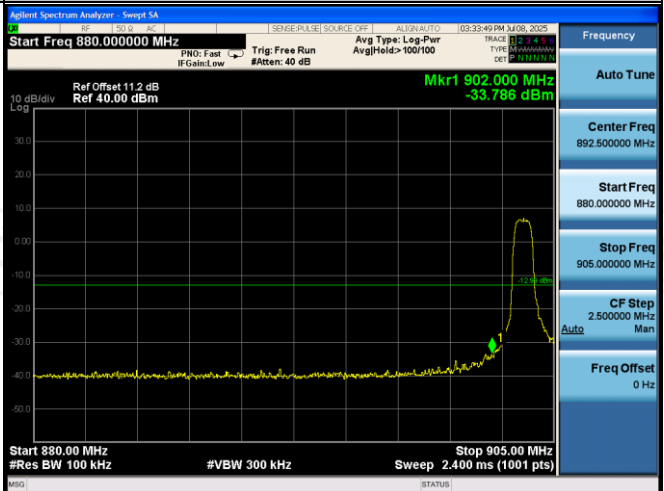
Antenna 0:

802.11ah BPSK Modulation

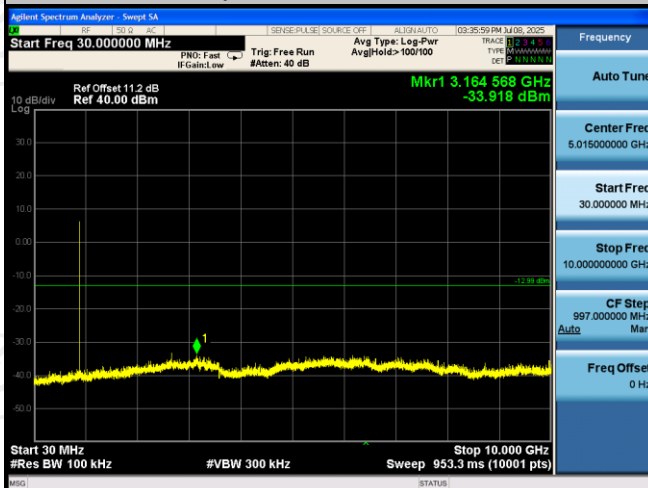
100kHz PSD reference Level



Band Edge

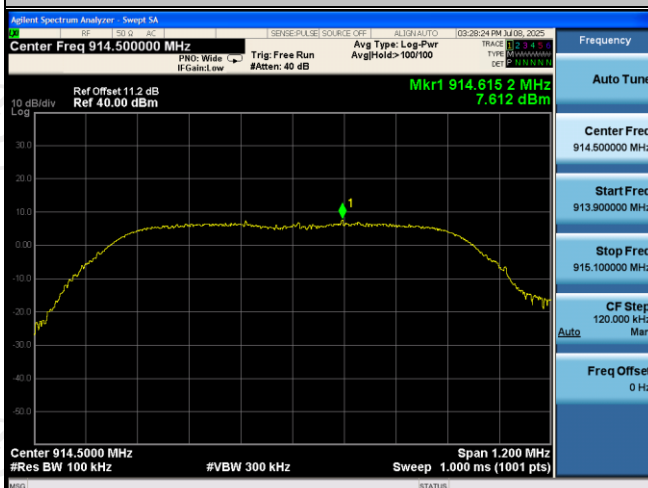


Spurious emission

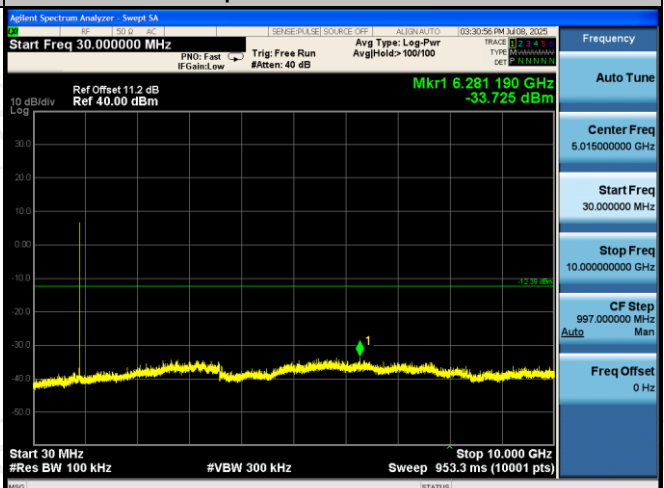


Lowest Channel

100kHz PSD reference Level



Spurious emission

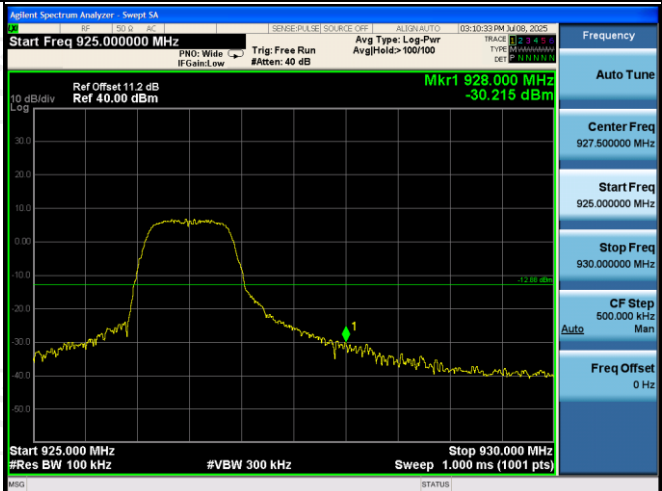


Middle Channel

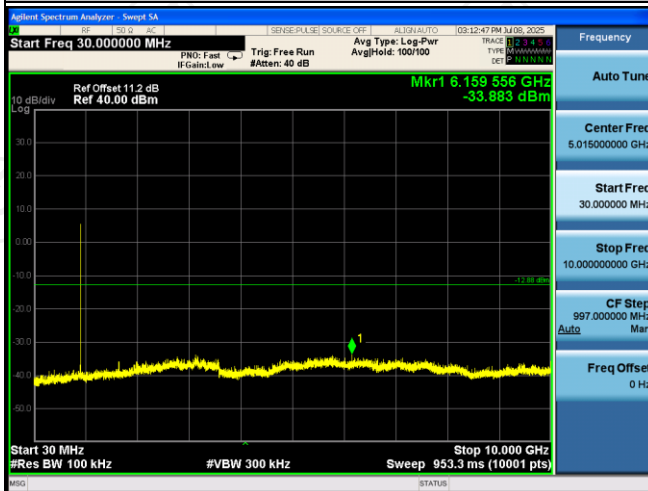
100kHz PSD reference Level



Band Edge

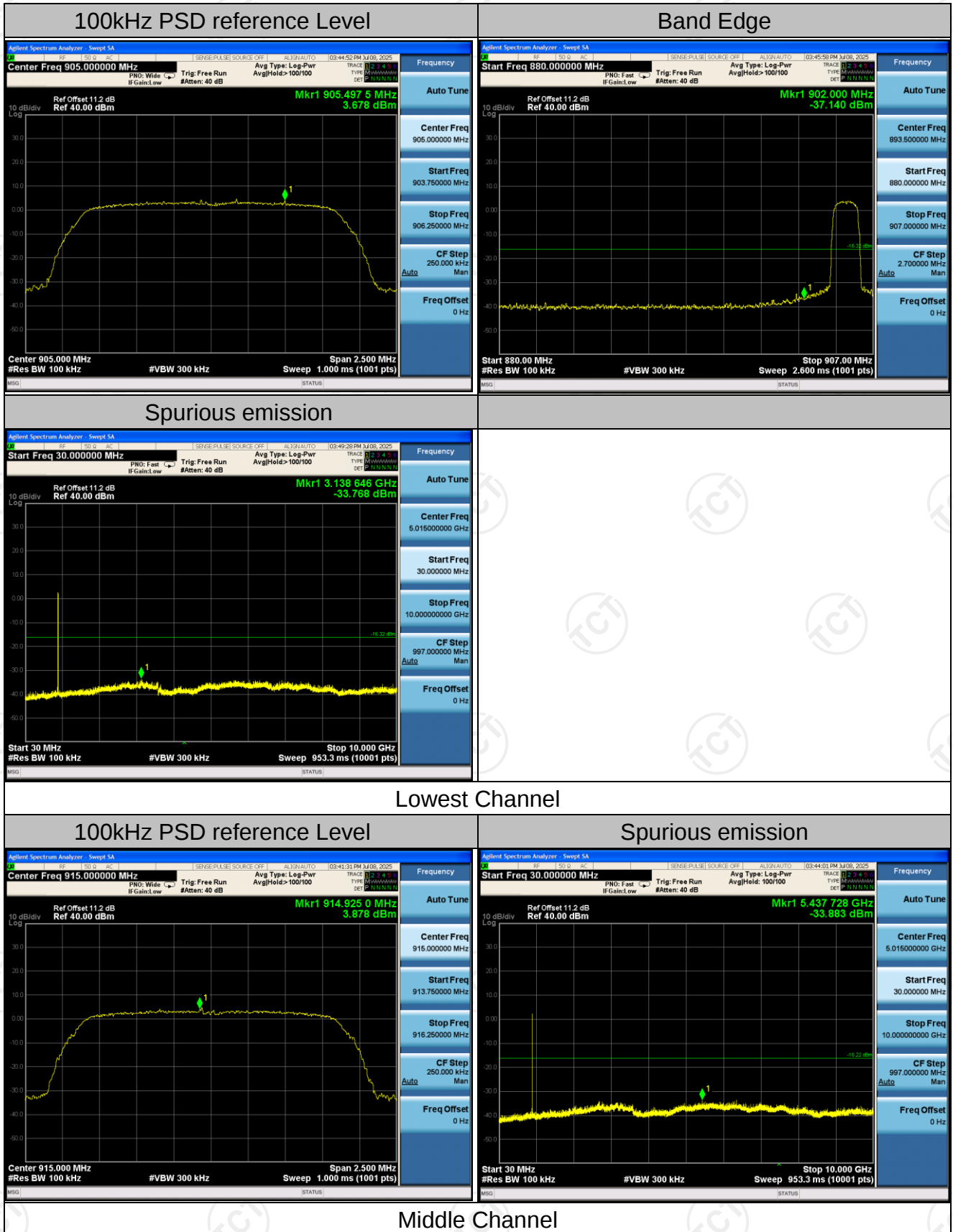


Spurious emission



Highest Channel

802.11ah QPSK Modulation



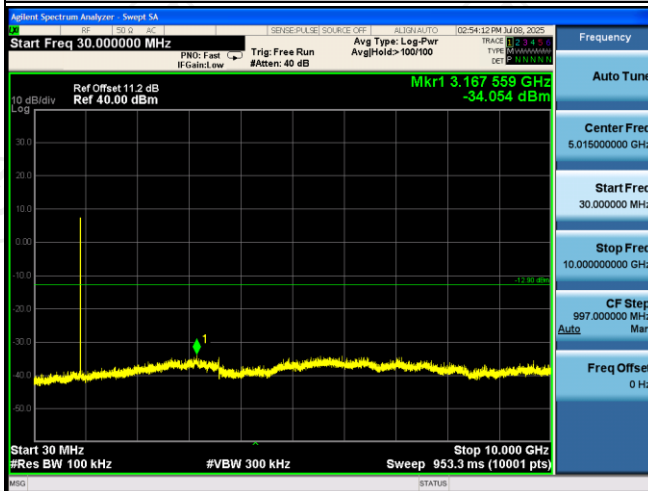
100kHz PSD reference Level



Band Edge



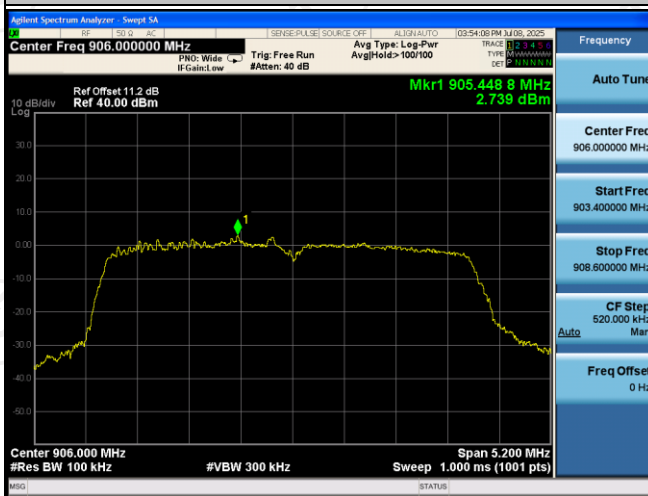
Spurious emission



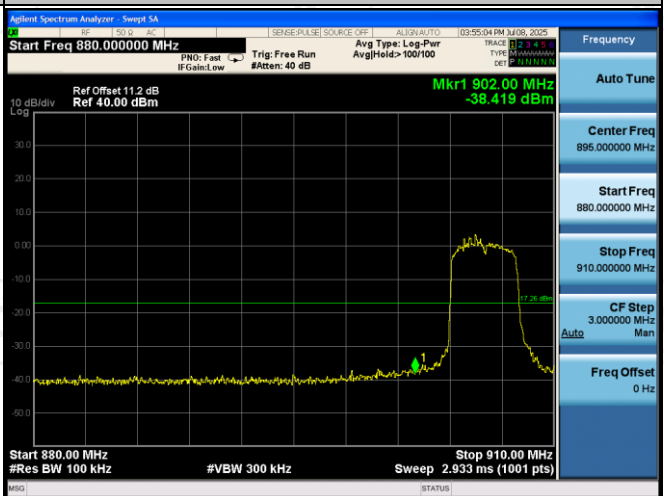
Highest Channel

802.11ah 16QAM Modulation

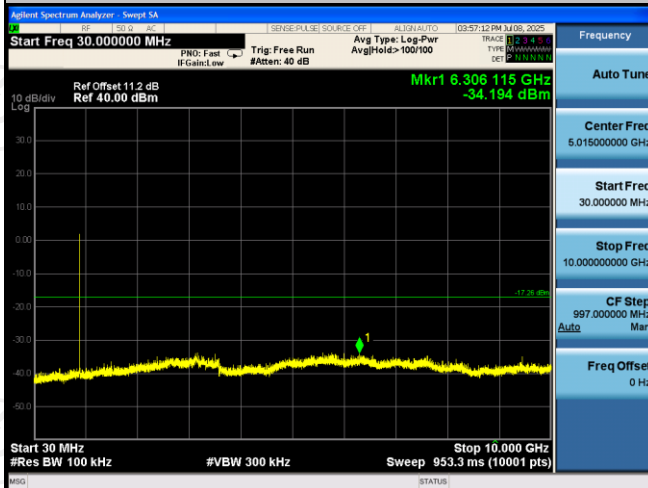
100kHz PSD reference Level



Band Edge

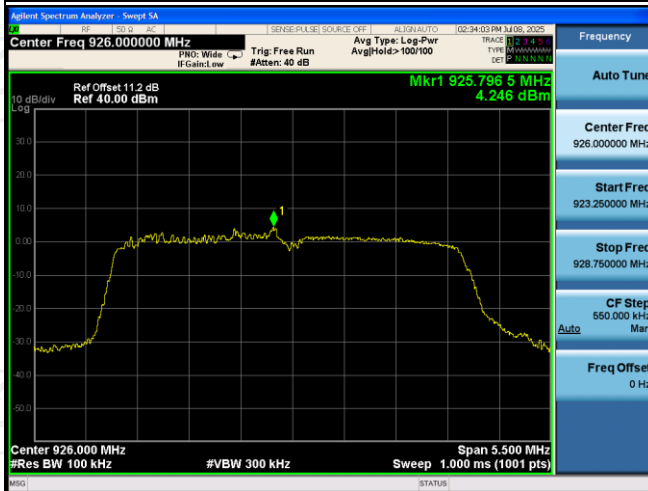


Spurious emission



Lowest Channel

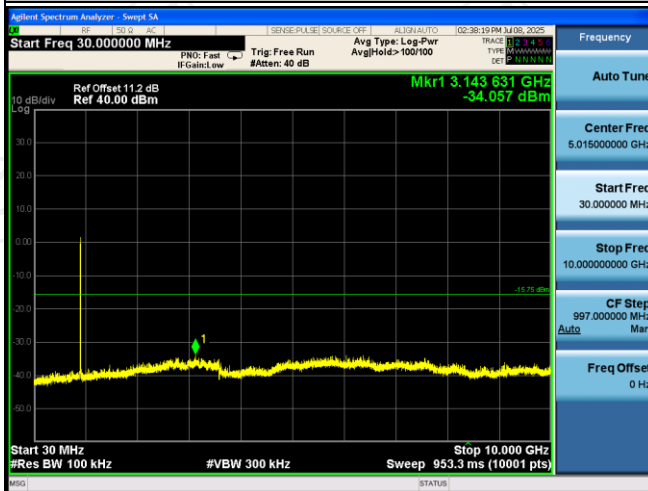
100kHz PSD reference Level



Band Edge



Spurious emission



Highest Channel

802.11ah 64QAM Modulation

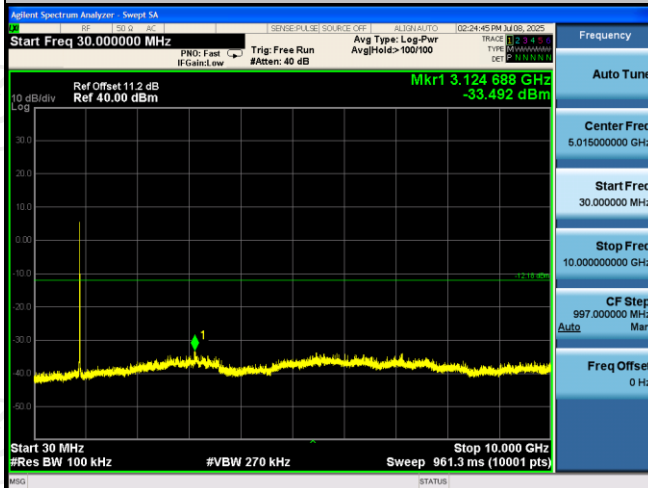
100kHz PSD reference Level



Band Edge

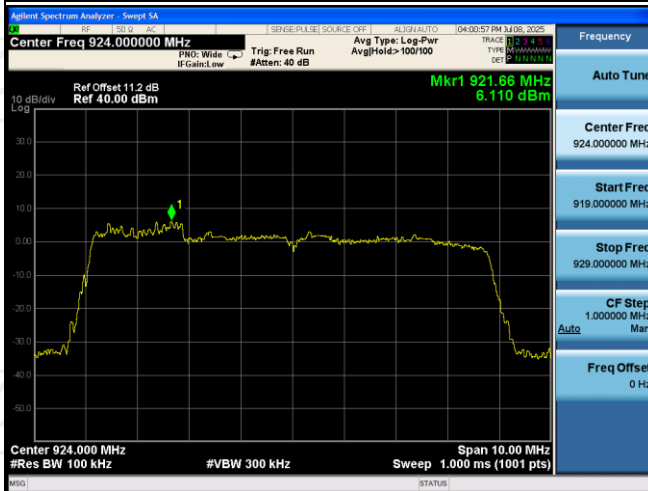


Spurious emission

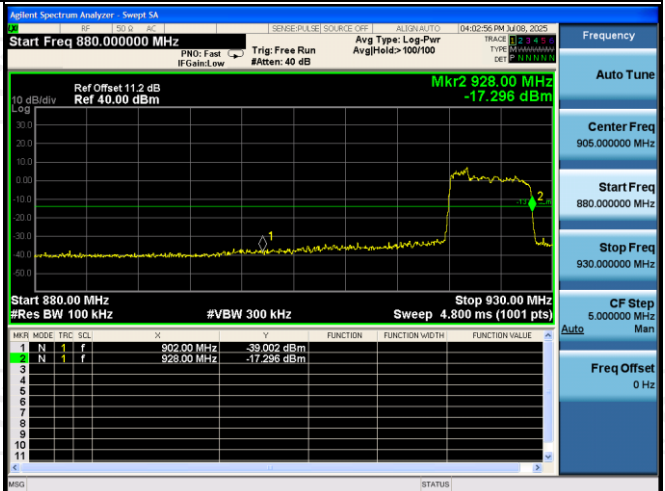


Lowest Channel

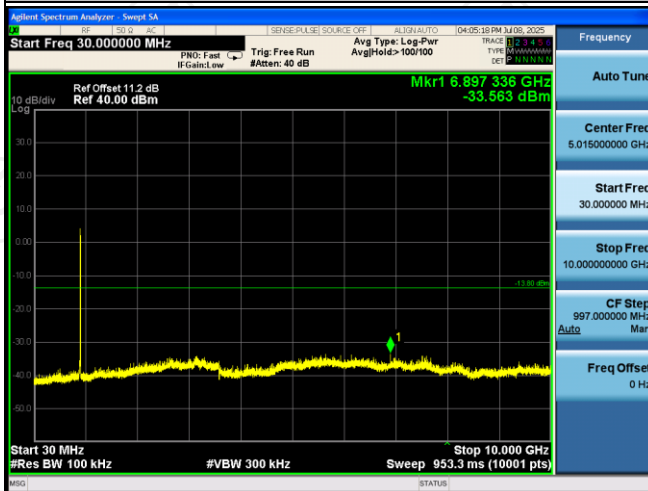
100kHz PSD reference Level



Band Edge



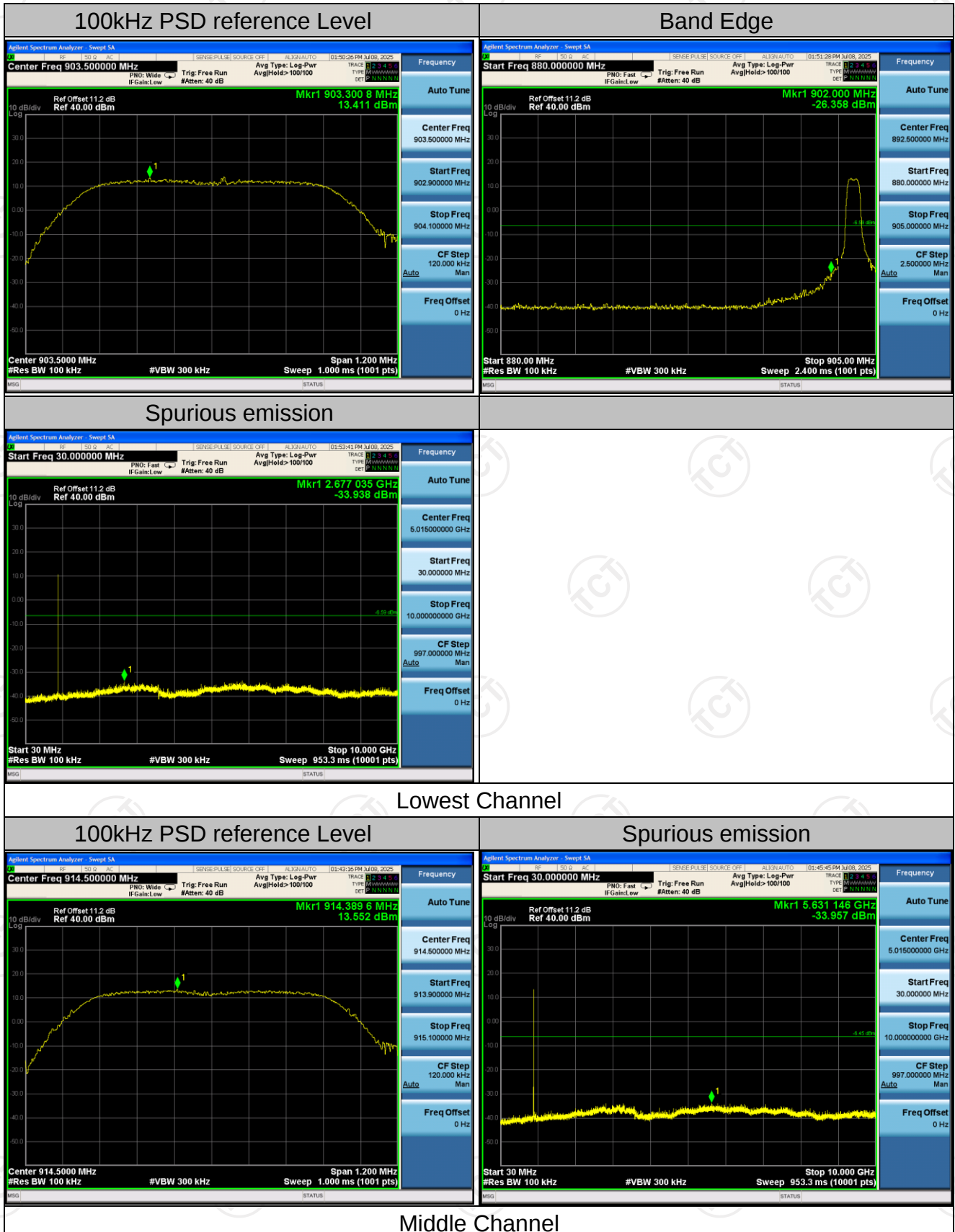
Spurious emission



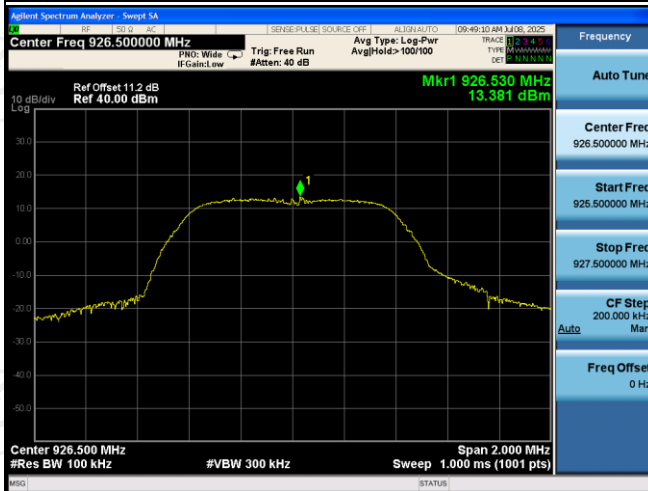
Highest Channel

Antenna 1:

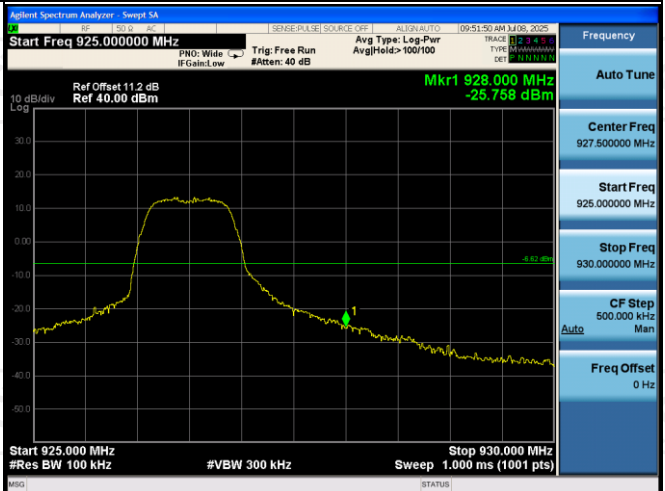
802.11ah BPSK Modulation



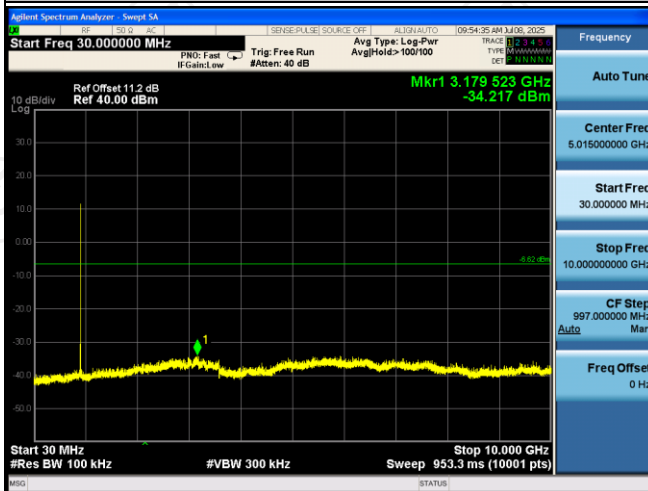
100kHz PSD reference Level



Band Edge

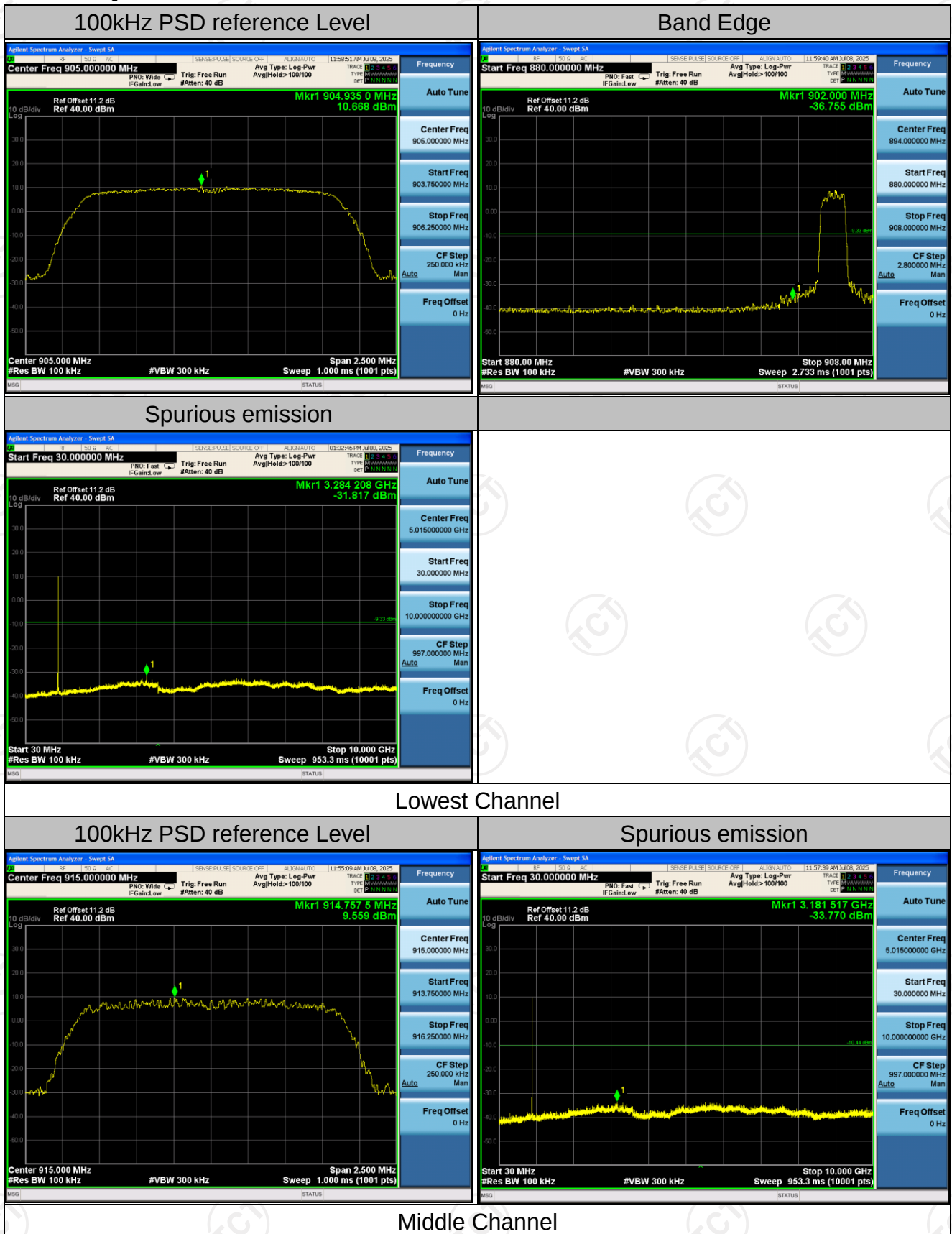


Spurious emission



Highest Channel

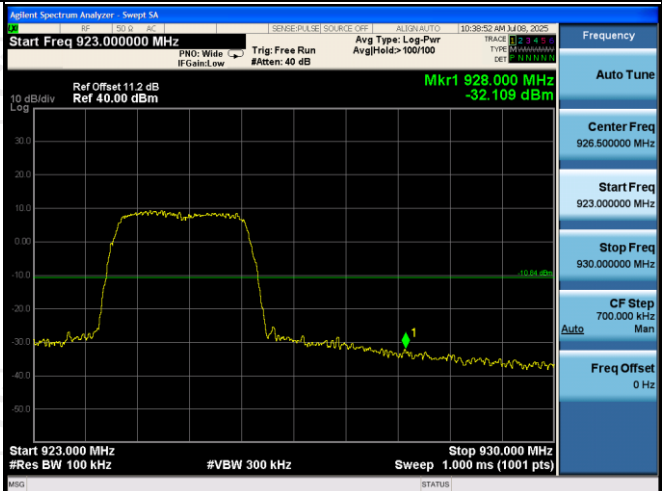
802.11ah QPSK Modulation



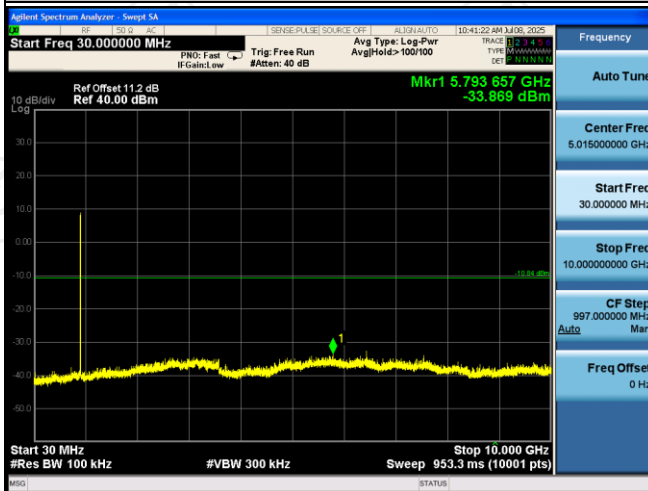
100kHz PSD reference Level



Band Edge



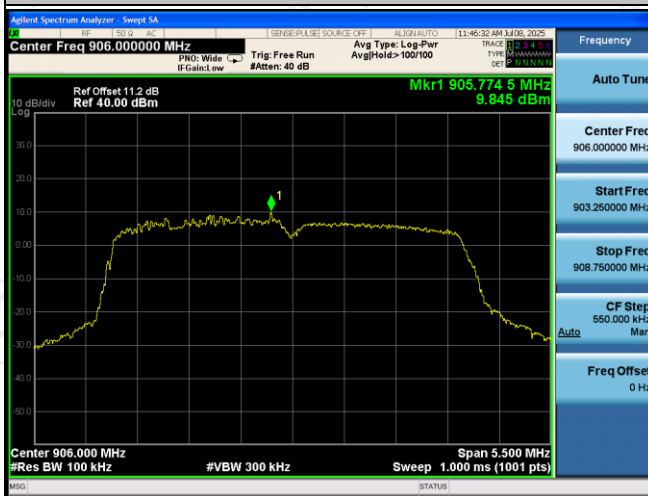
Spurious emission



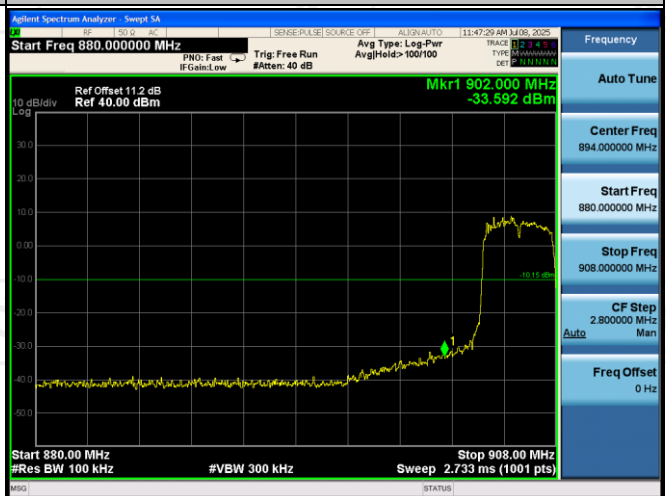
Highest Channel

802.11ah 16QAM Modulation

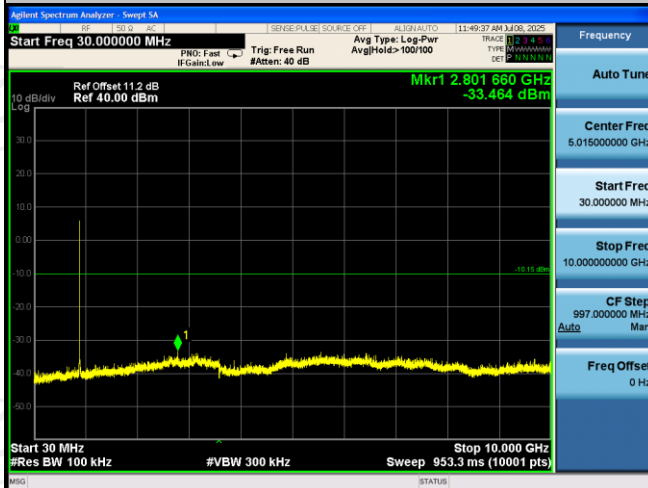
100kHz PSD reference Level



Band Edge

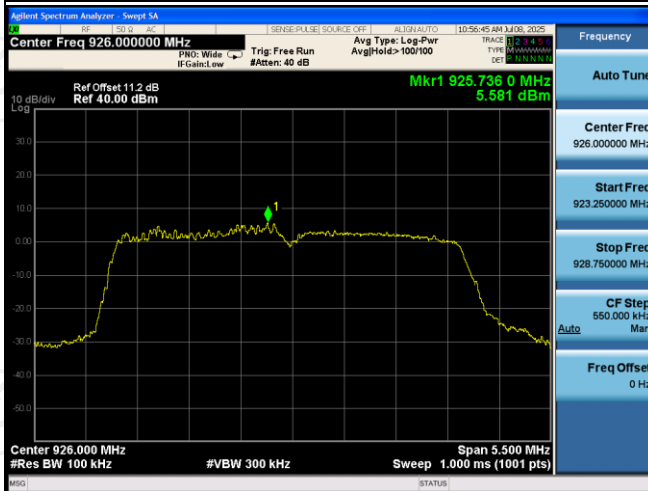


Spurious emission



Lowest Channel

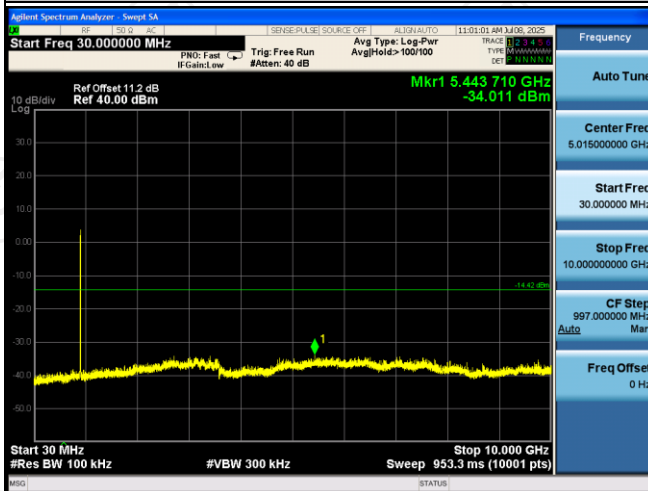
100kHz PSD reference Level



Band Edge

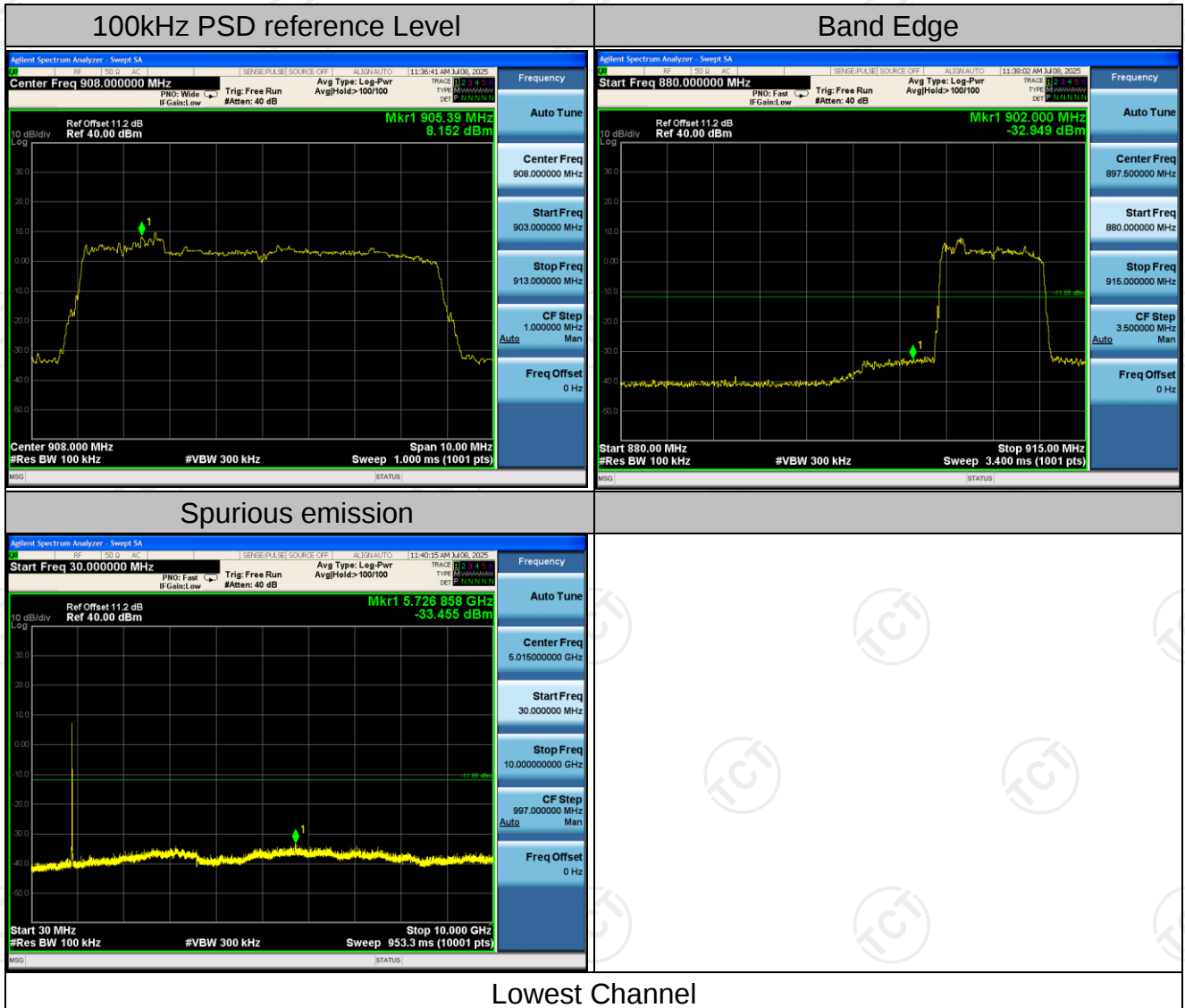


Spurious emission

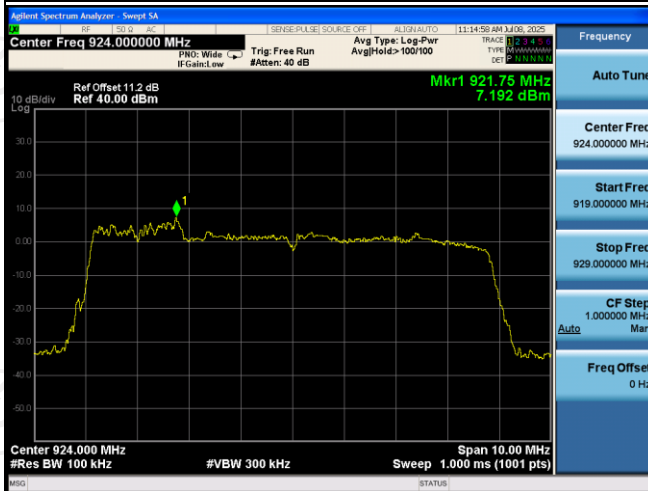


Highest Channel

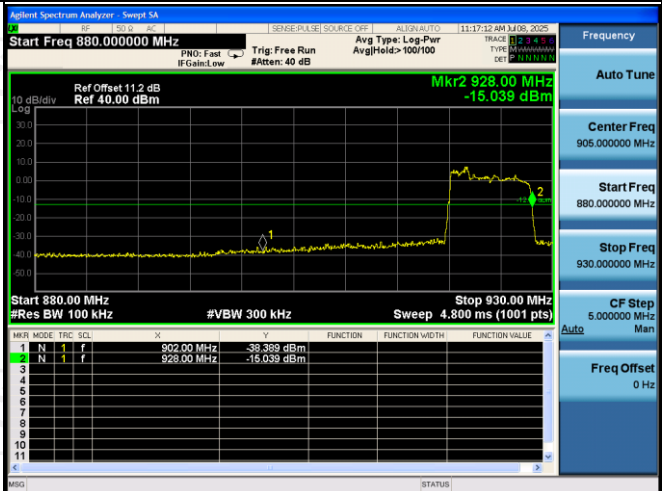
802.11ah 64QAM Modulation



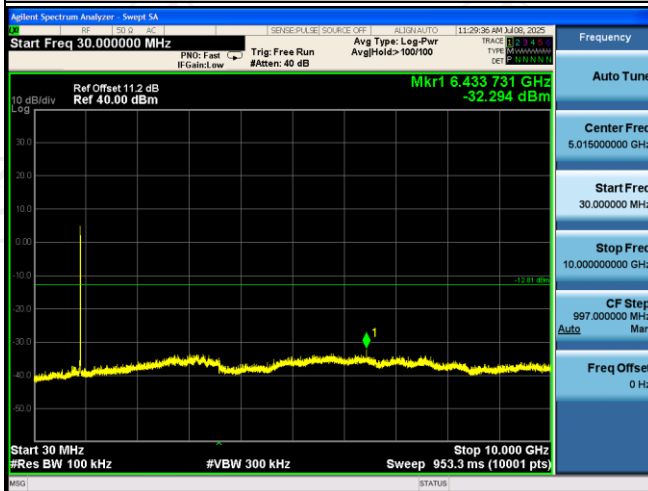
100kHz PSD reference Level



Band Edge



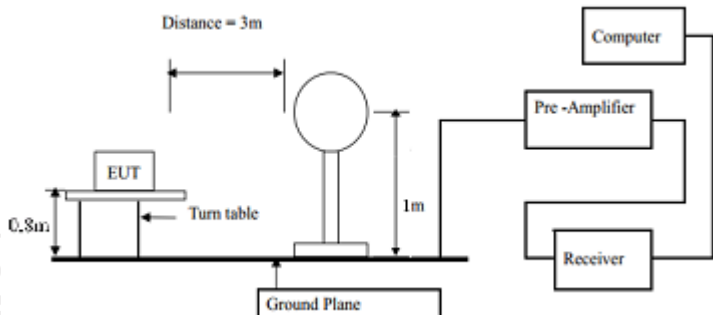
Spurious emission

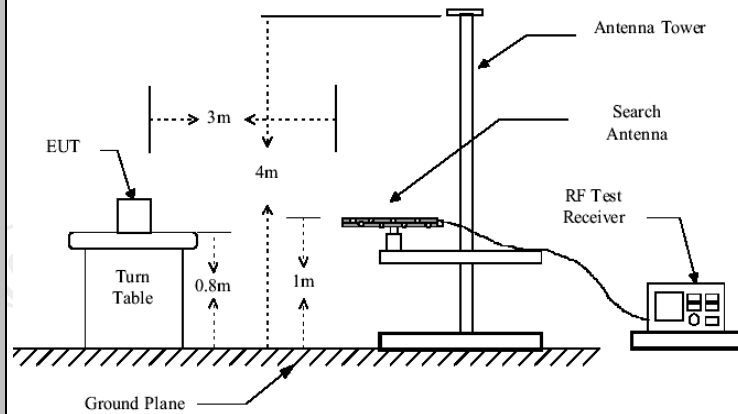


Highest Channel

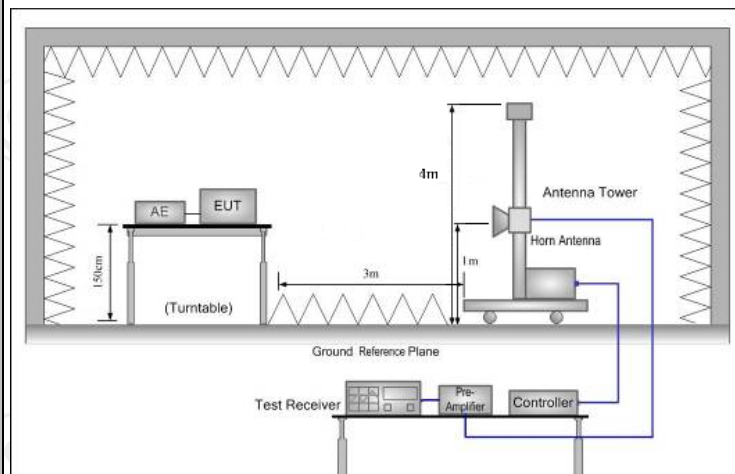
6.7. Radiated Spurious Emission Measurement

6.7.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2020				
Frequency Range:	9 kHz to 25 GHz				
Measurement Distance:	3 m				
Antenna Polarization:	Horizontal & Vertical				
Operation mode:	Transmitting mode with modulation				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
Peak		1MHz	10Hz	Average Value	
Limit:	Frequency		Field Strength (microvolts/meter)		Measurement Distance (meters)
	0.009-0.490		2400/F(KHz)		300
	0.490-1.705		24000/F(KHz)		30
	1.705-30		30		30
	30-88		100		3
	88-216		150		3
	216-960		200		3
	Above 960		500		3
	Frequency		Field Strength (microvolts/meter)	Measurement Distance (meters)	Detector
	Above 1GHz		500	3	Average
		5000	3	Peak	
Test setup:	For radiated emissions below 30MHz				
					
Test setup:	30MHz to 1GHz				



Above 1GHz



Test Procedure:

1. For the radiated emission test below 1GHz:
The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high PASS filter are used for the test in order to get better signal level.
For the radiated emission test above 1GHz:
Place the measurement antenna on a turntable with 1.5 meter above ground, which is away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which

	maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. 3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level 4. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported. 5. Use the following spectrum analyzer settings: (1) Span shall wide enough to fully capture the emission being measured; (2) Set RBW=120 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold; (3) Set RBW = 1 MHz, VBW= 3MHz for $f > 1$ GHz for peak measurement. For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
Test results:	PASS

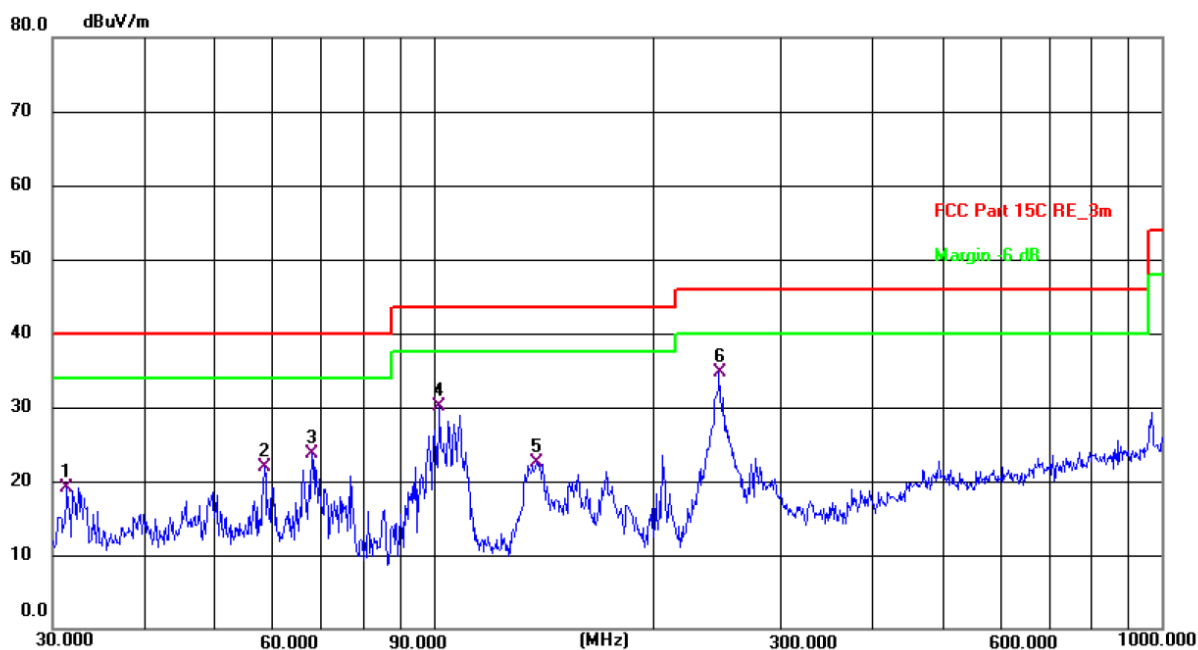
6.7.2. Test Instruments

Radiated Emission Test Site (966)					
Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
EMI Test Receiver	R&S	ESCI7	100529	Jan. 21, 2025	Jan. 20, 2026
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 26, 2025	Jun. 25, 2026
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Jan. 21, 2025	Jan. 20, 2026
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Jan. 21, 2025	Jan. 20, 2026
Pre-amplifier	HP	8447D	2727A05017	Jun. 26, 2025	Jun. 25, 2026
Loop antenna	Schwarzbeck	FMZB1519B	00191	Jun. 26, 2025	Jun. 25, 2026
Broadband Antenna	Schwarzbeck	VULB9163	340	Jun. 26, 2025	Jun. 25, 2026
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jun. 26, 2025	Jun. 25, 2026
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Jan. 23, 2025	Jan. 22, 2026
Coaxial cable	SKET	RE-03-D	/	Jun. 26, 2025	Jun. 25, 2026
Coaxial cable	SKET	RE-03-M	/	Jun. 26, 2025	Jun. 25, 2026
Coaxial cable	SKET	RE-03-L	/	Jun. 26, 2025	Jun. 25, 2026
Coaxial cable	SKET	RE-04-D	/	Jun. 26, 2025	Jun. 25, 2026
Coaxial cable	SKET	RE-04-M	/	Jun. 26, 2025	Jun. 25, 2026
Coaxial cable	SKET	RE-04-L	/	Jun. 26, 2025	Jun. 25, 2026
Antenna Mast	Keleto	RE-AM	/	/	/
EMI Test Software	EZ EMC	FA-03A2 RE+	1.1.4.2	/	/

6.7.3. Test Data

Please refer to following diagram for individual
Below 1GHz

Horizontal:



Site 3m Anechoic Chamber2

Polarization: **Horizontal**

Temperature: 22.8(C) Humidity: 51 %

Limit: FCC Part 15C RE_3m

Power: AC 120 V/60 Hz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	31.3992	38.68	-19.56	19.12	40.00	-20.88	QP	P	
2	58.6126	40.71	-18.80	21.91	40.00	-18.09	QP	P	
3	68.1512	43.78	-20.10	23.68	40.00	-16.32	QP	P	
4	102.0013	51.27	-21.08	30.19	43.50	-13.31	QP	P	
5	138.3873	40.69	-18.11	22.58	43.50	-20.92	QP	P	
6 *	246.8148	54.26	-19.61	34.65	46.00	-11.35	QP	P	